

Clarendon College
Division of Science and Health
Agriculture Department

AGRI 1415: Principles of Horticulture
Spring 2012

Course Syllabus

Meeting Time: Lab: 9:30 – 10:55 Tues, Thurs. **Lecture:** Tues, Thurs.8:00 -9:20
Meeting Place: CRSN 107

Instructor: Mr. Brian Fuller

Office Hours: Monday – Friday: 11:00 – 12:00
Monday – Thursday: 1:00 – 3:00

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Course Description:

Structure, growth, and development of horticultural plants from a practical and scientific approach. Environment effects, basic principles of propagation, greenhouse and outdoor production, nutrition, pruning chemical control of growth and pest control.

Statement of Purpose:

Principles of Horticulture partially satisfies the requirements for the Associates Degree at Clarendon College and is designed for transfer to a senior college.

Required Text:

Acquaah, George. *Horticulture: Principles and Practices*. 4th ed. Upper Saddle River, New Jersey: Pearson: Prentice Hall, 2009.

Optional Text:

Preece, John E. and Read, Paul E. *The Biology of Horticulture: An Introductory Textbook*. 2nd Edition. Hoboken, N.J.: John Wiley & Sons, 2005.

Methods of Instruction:

This course centers upon class lecture and discussion. Discussion is essential for the exchanging of ideas and a greater understanding of the content. Therefore, questions will be asked in order to make a more complete learning environment. It is essential for the student to read the class

assignments as a basis for the class. Videos and other materials will also be a part of the instructional process.

Student Outcomes:

- a) Understand the history, art, culture and science of the various horticultural disciplines and crops.
- b) Discuss the fundamentals of plant classification and plant anatomy.
- c) Predict the outcome of monohybrid plant crosses utilizing an understanding of Mendelian genetics.
- d) Compare and contrast the reproductive strategies of different plant groups (evaluating the costs and benefits of asexual versus sexual reproduction).
- e) Evaluate the ethical issues, costs and benefits of plant cloning (both natural and artificial).
- f) Discuss the physiology of water movement, metabolism and reproduction in plants.
- g) Describe, with a fundamental understanding, the relationships between plants and their environments.
- h) Compare and contrast plant hormones, chemical control of plant growth, pruning techniques, plant propagation and plant pest treatments.
- i) Comprehend the importance of plants and the importance of horticulture in society.

Course Objectives:

- a) Understand and apply methods and appropriate technology to the study of natural sciences.
- b) Recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry and to communicate findings, analyses and interpretation both orally and in writing.
- c) Identify and recognize the differences among competing scientific theories.
- d) Demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values and public policies.
- e) Demonstrate knowledge of the interdependence of science and technology and their influence on and contribution to modern culture.

Grading Policies:

The final semester grades will be figured as set in the current catalog:

90-100 = A 80-89 = B 70-79 = C 60-69 = D 59 or Below = F

Grades will be calculated as follows:

4 Exams (including the final) @ 75% of total grade

Attendance and Participation @ 10%

Entire lab @ 15%

Lab Grading Criteria:

Participation – 25%

Assignments/Quizzes – 25%

Mid-Term – 25%

Final – 25%

The lab portion of this class will have a separate grading system. The overall lab grade will be figured into the final grade of the class at a value of fifteen percent of the total grade. The lab will consist of various assignments, group participation, individual attendance, a lab mid-term and a lab final.

Each exam will be administered after the completion of the respective unit. Discussion and participation will be based upon the student's involvement in the class. Attendance and participation is required and expected. Final Exam: Students must take a final. The time for the final is published at the beginning of each semester. The fifth exam of the semester will be the "Final" Exam and will be administered during the scheduled final exam time. No make-up exams will be given. Students must make arrangements with the instructor to take an exam early.

Class Participation and Attendance:

As stated earlier, class participation and attendance is required and expected. All absences validated by doctor's notes, Clarendon College Personnel requests (coaches, Deans, etc.), and instances of extreme emergency as determined by the instructor will be considered excused. All other absences will be considered unexcused. A total of five unexcused absences will result in the complete forfeit of the Class Participation grade. It is vital for the education of the student as well as the other students for each student to participate in class discussions and to be involved in the learning process.

Withdrawal: If you decide that you are unable to complete this course or that it will be impossible to complete the course with a passing grade, you may drop the course and receive a "W" on our transcript instead. Withdrawal from a course is a formal procedure that you must initiate. If you do not go through the formal withdrawal procedure, you will receive a grade of "F" on your transcript. A student is permitted to drop a course if he/she obtains an official drop slip from the office and has the instructor sign the slip before the 12th class week. Remember, a student is only allowed to drop the same class twice before he/she will be charged triple the tuition amount for taking the class a third time or more. Furthermore, beginning with the Fall 2007 semester, students in Texas may only drop a total of 6 courses throughout their entire undergraduate career. After the 6th course, he/she will no longer be able to withdraw from any classes.

Classroom Policies:

Classroom Conduct

Failure to comply with lawful direction of a classroom instructor is a disruption for all students enrolled in the class. Cheating violations include, but are not limited to: (1) obtaining an examination, classroom activity, or laboratory exercise by stealing or collusion; (2) discovering the content of an examination, classroom activity, laboratory exercise, or homework assignment before it is given; (3) using an unauthorized source of information during an examination, classroom activity, laboratory exercise, or homework assignment; (4) entering an office or building to obtain unfair advantage; (5) taking an examination for another person; (6) completing a classroom activity, laboratory exercise, homework assignment, or research paper for another person; (7) altering grade records; (8) using any unauthorized form of electronic communication device during an examination, classroom activity, or laboratory exercise; (9) Plagiarism.

Plagiarism is the using, stating, offering, or reporting as one's own, an idea, expression, or production of another person without proper credit. Disciplinary actions for cheating in a course are at the discretion of the individual instructor. The instructor of that course will file a report with the Dean of Students when a student is caught cheating in the course, whether it be a workforce or academic course. The report shall include the course, instructor, student's name, and the type of cheating involved. Students who are reported as cheating to the Dean of Students more than once shall be disciplined by the Dean. The Dean will notify all involved parties within fourteen days of any action taken.

American with Disabilities Act Statement:

Clarendon College provides reasonable accommodations for persons with temporary or permanent disabilities. Should you require special accommodations, notify the Office of Student Services (806-874-3571 or 800-687-9737). We will work with you to make whatever accommodations we need to make.

Dropping a Course:

A student who is enrolled in a developmental course for TSI purposes may not drop his/her only developmental course unless the student completely withdraws from the college. A student may drop any other course with a grade of "W" any time after the census date for the semester and on or before the end of the 12th week of a long semester, or on or before the last day to drop a class of a term as designated in the college calendar. The request for permission to drop a course is initiated by the student by procuring a drop form from the Office of Student Services. (Refer to other policies concerning this issue in the current college catalog online.)

Withdrawal from College:

When a student finds it necessary to withdraw from school before the end of the semester, he or she should obtain a withdrawal form from the Office of Student Services. Students may also withdraw from the college by sending a written request for such action to the Registrar's Office. The request must include the student's signature, the student's current address, social security number and course information details. Students who withdraw after the census date for the semester and on or before the end of the 12th week of a long semester, or on or before the last day to drop a class of a term as designated in the college calendar will be assigned a grade of "W."

Student Expectations and Guidelines:

In addition to the previously stated expectations and guidelines, students are expected to adhere to the following:

- 1) Grant respect to each other and to the instructor and respect shall be shown to you.
- 2) Refrain from using profane or obscene language or gestures at all times in class.
- 3) Dress in clean, appropriate and courteous clothing.
- 4) Refrain from using any communication device, except in emergency situations.
- 5) Absolutely no form of any communication device (cell phone, PDA, laptop, carrier pigeon, or any other imaginable device) will be allowed during exams, quizzes, or other testing periods. Upon visualization of the device, the instructor will remove the exam or

other testing material from the student, ask the student to leave the room and assign a grade of zero to the material.

- 6) No material other than the exam and writing utensil will be allowed on the student's desk during an exam unless approved by the instructor. Approved devices will only include items such as calculators, approved formula sheets, or other test appropriate material.
- 7) No hats, caps, or head coverings of any kind will be allowed at any time during a testing period. This includes all students, male and female. If a head covering of any kind is worn during the testing period, the student will be asked to remove the object. If the student refuses to remove the covering or cannot remove the covering and return to the class and finish the exam during the scheduled time, a grade of zero will be assigned to the material.
- 8) Please keep restroom breaks and other interruptions to a bare minimum.
- 9) Please notice the emergency evacuation map and be cognizant of what steps to take in case of emergency (fire, tornado, etc.).

Course Calendar:

Part 1: The Underlying Science

Chapter 1: What Is Horticulture?

Chapter 2: Classifying and Naming Horticultural Plants

Chapter 3: Plant Anatomy

Chapter 4: Plant Growth Environment

Exam 1

Part 2: Protecting Horticultural Plants

Chapter 5: Plant Physiology

Chapter 6: Breeding Horticultural Plants

Chapter 7: Biological Enemies of Horticultural Plants

Chapter 8: Principles and Methods of Disease and Pest Control

Exam 2

Part 3: Propagating Horticultural Plants

Chapter 9: Sexual Propagation

Chapter 10: Asexual Propagation

Chapter 11: Growing Houseplants

Chapter 12: Controlled-Environment Horticulture

Exam 3

Part 4: Growing Plants Indoors

Chapter 13: Greenhouse Production

Chapter 14: Growing Succulents

Chapter 15: Principles of Landscaping

Chapter 16: Nursery Production

Final Exam

Tentative Lab Schedule:

- Week of 1/23/12:
Introduction to planting systems, group choices, seed selection, and planting seeds.
- Week of 1/30/12:
Plant Taxonomy, Learning to use a Dichotomous Key, and plant evaluation.
- Week of 2/6/12:
Plant Structures, determination of various structures of flowers, and plant evaluation.
Video Supplement.
- Week of 2/13/12:
Photosynthesis Discussion and Plant Identification Exercise.
Possible movement of plants to Green House.
- Week of 2/20/12:
Genetics Exercise. Biotechnology introduction. Plant evaluation and transfer.
- Week of 2/27/12:
Introduction of plant pests. Pest identification and management practices.
- Week of 3/5/12:
Lab Mid-Term.
- Week of 3/19/12:
Sexual and Asexual Reproduction. African Violet Exercise. Fern Exercise.
Video Supplement
- Week of 3/26/12:
Plant Evaluation. Data collection of plants from week 1. Discussion of plants and plant growth.
- Week of 4/2/12:
Field Trip to Country Bloomer's Flower Shop with Courtney Monroe.
- Week of 4/9/12:
Field Trip to White's Feed Store to view green house and green house practices.
- Week of 4/16/12:
Field Trip to Laban Tubbs' pecan orchard to view pecan trees, grafting techniques, and pecan cracking techniques.
- Week of 4/23/12:
Lab Final

